

IN THE CLAIMS:

Please amend claim 1 as follows:

1. (Currently Amended) A manufacturing method for an optical fiber grating comprising the steps of:

loading hydrogen in a material optical fiber for forming the optical fiber grating in order to increase~~ing~~ the photosensitivity of the optical fiber when necessary;

forming a grating part having a periodic refractive index distribution by irradiating an optical fiber along the longitudinal direction with ultraviolet light at a predetermined period and carrying out dehydrogenation when necessary;

carrying out at least once uniform ultraviolet irradiation processing that irradiates the grating part as a whole at a predetermined temperature and time with ultraviolet light;

carrying out at least once heat trimming processing that uniformly heats the grating part as a whole at a predetermined temperature and time; and ~~and~~

carrying out heat final ~~final~~ annealing processing that heats the grating part to a uniform temperature for a predetermined period in order to stabilize the optical properties of the grating part; ~~part.~~

wherein the uniform ultraviolet irradiation processing and the heat trimming processing are carried out alternately as optical property adjusting processing.

2. (Previously Presented) A manufacturing method for an optical fiber grating according to claim 1 wherein, before or after said uniform ultraviolet irradiation processing, heat trimming processing is carried out at least once by uniformly heating the grating part as a whole in order to adjust the optical properties.

3. (Currently Amended) A manufacturing method for an optical fiber grating according to claim 1, wherein the uniform ultraviolet irradiation processing and the heat trimming processing are carried out at optional times ~~an arbitrary number of times and in an arbitrary sequence~~ as optical property adjusting processing until predetermined optical properties of the optical fiber grating are obtained.

4. (Currently Amended) A manufacturing method for an optical fiber grating according to claim 1, wherein said uniform ultraviolet irradiation processing and said heat trimming processing are ~~optionally~~ alternated and the alternation is carried out at optional times while monitoring one of either the transmitted light or and/or the reflected light, ~~of the optical fiber grating~~ in addition to the reference light of the optical fiber grating. --